

What is claimed is:

1 1. A system of data communication handoff,
2 comprising:

3 a wireless telephony network comprising a base
4 station system (BSS) and a visit location
5 register (VLR) corresponding to the BSS,
6 wherein the BSS manages data communication in a
7 cell, and the VLR generates a temporary
8 authentication identity applicable only in the
9 cell when a mobile terminal is successful
10 authentication for data communication via the
11 wireless telephony network, and transmits the
12 temporary authentication identity to the mobile
13 terminal; and

14 a wireless local area network (WLAN) located in the
15 cell comprises a access point, wherein the
16 access point receives the temporary
17 authentication identity from the wireless
18 telephony network before the mobile terminal
19 associates with the access point, and
20 authenticates the mobile terminal by verifying
21 the temporary authentication identity for data
22 communication via the WLAN upon the mobile
23 terminal associates with the access point.

1 2. The system as claimed in claim 1 wherein the
2 WLAN further comprises an authentication, authorization
3 and accounting (AAA) server storing information regarding
4 the WLAN located in the cell.

1 3. The system as claimed in claim 1 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).

1 4. The system as claimed in claim 3 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).

1 5. The system as claimed in claim 1 wherein the
2 wireless telephony network further comprises a home
3 location register (HLR), and the WLAN further comprises
4 an authentication, authorization and accounting (AAA)
5 server and a HLR-AAA gateway.

1 6. The system as claimed in claim 5 wherein the
2 temporary authentication identity is transmitted to the
3 access point via the HLR, the HLR-AAA gateway and the AAA
4 server.

1 7. The system as claimed in claim 6 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).

1 8. The system as claimed in claim 2 wherein the
2 wireless telephony network further comprises a home
3 location register (HLR), and the WLAN further comprises a
4 HLR-AAA gateway.

1 9. The system as claimed in claim 8 wherein the
2 temporary authentication identity is transmitted to the
3 access point via the HLR, the HLR-AAA gateway and the AAA
4 server.

1 10. The system as claimed in claim 9 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).

1 11. A method of data communication handoff,
2 utilized in a wireless telephony network and a wireless
3 local area network (WLAN) performing the steps of:

4 generating a temporary authentication identity
5 applicable in a local cell, with a visit
6 location register (VLR) when a mobile terminal
7 is successful authentication for data
8 communication via the wireless telephony
9 network, wherein the VLR within the wireless
10 telephony network;

11 transmitting the temporary authentication identity
12 to the mobile terminal;

13 receiving the temporary authentication identity with
14 an access point within the WLAN from the
15 wireless telephony network before the mobile
16 terminal associates with the access point; and

17 authenticating the mobile terminal by verifying the
18 temporary authentication identity for data
19 communication via the WLAN upon the mobile
20 terminal associates with the access point.

1 12. The method as claimed in claim 11 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).

1 13. The method as claimed in claim 11 wherein the
2 step of receiving the temporary authentication identity,

3 the temporary authentication identity is transmitted via
4 a home location register (HLR), an authentication,
5 authorization and accounting (AAA) server and a HLR-AAA
6 gateway, the HLR being within the wireless telephony
7 network, and both the AAA server and the HLR-AAA gateway
8 being within the WLAN.

1 14. The method as claimed in claim 13 wherein the
2 temporary authentication identity comprises a temporary
3 mobile subscriber identity (TMSI).